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## **Table of Contents**

<b>Cover.....</b>	<b>1</b>
<b>SF 298.....</b>	<b>2</b>
<b>Introduction.....</b>	<b>4</b>
<b>Second Year Activities.....</b>	<b>4</b>
<b>Current and Planned Activities.....</b>	<b>5</b>
<b>Appendix.....</b>	<b>7</b>

## INTRODUCTION

This epidemiological study will investigate the hypothesis that Army personnel who reported medically unexplained physical symptoms (MUPS) to the Department of Veterans Affairs (VA) Persian Gulf Registry (PGR) or the Department of Defense (DoD) Comprehensive Clinical Evaluation Program (CCEP) upon returning from the Persian Gulf War have patterns of illness and medical care seeking during the year prior to deployment to the Persian Gulf that differ from those of comparison groups of Army personnel who deployed to the Persian Gulf who either did not sign up with either registry or did register but did not report MUPS. For members of each of these groups, investigators will abstract data from the military health records for the twelve months spent on active duty prior to Persian Gulf War deployment. Number and types of outpatient visits and inpatient stays will be compared.

The study is records-based and the end product will be an article submitted for publication in a peer-reviewed journal.

During the first year of the project, the Medical Follow-up Agency (MFUA) of the Institute of Medicine (IOM) assigned staff to the data project and appointed seven experts to serve on an advisory panel. Considerable effort was spent, this first year, reviewing the predecessor pilot study and, in the light of lessons learned, revising the proposed study protocol. Staff sought and benefited from suggestions from the advisory panel, the MFUA board, the research subcommittee of the Military and Veterans Health Coordinating Board (of the Departments of Defense and Veterans Affairs), and others with expertise in the subject matter or the conduct of similar studies.

## SECOND YEAR ACTIVITIES

Second year activities focused on finalizing study group selection criteria, a task requiring detailed understanding of—and access to—the VA and DoD registry databases and the literature on post-combat illnesses. Changes over time in the content and organization of registry data required that the investigators construct study group definitions that both account for the changing characteristics of the data systems and result in the best groups with which to explore the study hypotheses.

The foremost activity has been the extensive effort of the advisory committee, Department of Veterans Affairs (VA) colleagues, and study staff to craft a case definition that would be defensible both scientifically and, as is necessary for a topic of great concern to veterans and DoD alike, on its face. We have successfully developed an ICD-9 code-based, multisymptom case definition. MFUA believes that the definition finalized this year achieves that and that the time in developing it, therefore, was well-spent. We have applied the case-definition algorithm to the symptom and diagnosis fields in the registry examination data and worked to refine quantitative aspects of the case-selection algorithm.

With the case definition finalized, the study team was able to finalize the basic study design, based on known administrative constraints (such as record availability), the status of data resources (relating to changes in Department of Veterans Affairs and Department of Defense data forms), and the suggestions of this project's advisory panel, Medical Follow-up Agency board members, and the Military and Veterans Health Coordinating Board research subcommittee.

We requested data from the Defense Manpower Data Center (DMDC) to identify Army personnel records eligible (by dates of service, branch of service, and Persian Gulf War deployment) for study selection; and, using those data, identified Army personnel records eligible for study selection. The next step was submitting to the VA Beneficiary Identification and Records Locator Subsystem (BIRLS) a request for claim folder—and Army service medical record—location for the entire study-eligible population. MFUA now has whatever record-location information that is available via the automated BIRLS system. Operations staff moved DMDC and sample registry data to the Oracle-UNIX environment that MFUA recently acquired and created a registry-examination database in Oracle-UNIX environment.

In continuing efforts to obtain VA and DoD Persian Gulf registry examination data from VA, MFUA reached an interim agreement and received—**without personal identifiers**—the electronic files of eligible Army PGW-deployed personnel who registered with the CCEP or the PGR. Discussions regarding VA conditions for releasing data with personal identifiers continue.

As with all projects, staff maintains ongoing vigilance to identify and gather resource documents and articles for staff and advisory panel reference.

**Staff.** The assembled staff for this research project includes long-time veterans of MFUA projects in military and veterans health as well as promising newcomers (see Appendix for staff listing). The core staff includes experience in epidemiology, military medicine, and database and computer programming, and VA, DoD, and NARA records.

**Advisory Panel.** No changes since our last report. The advisory panel reflects academic and practical experience in military medicine and research, epidemiology, Persian Gulf War illnesses, veterans affairs, and clinical care (roster attached as Appendix).

**Collaboration with Department of Veterans Affairs.** MFUA has been working with the VA Environmental Epidemiology Service, a reservoir of Persian Gulf veteran-related data and related expertise, and is now formulating an official collaborative arrangement. This should allow for more and timely VA staff time.

## CURRENT AND PLANNED ACTIVITIES

The sponsor has granted MFUA's request for a no-cost extension of the contract period through June 30, 2003. Although MFUA included estimates of certain record-retrieval related delays in its project timeline, it also has encountered unanticipated delays in acquiring from the VA data essential to case selection. Over the last several months, VA staff has faced a greatly increased workload involving

setting up a newly funded deployment health research center and providing data support to activities following last fall's increased attention to biodefense and deployment health. VA, therefore, has not yet processed the internal paperwork needed for data release.

Once VA clears that step, the study will approach the anticipated difficulties in retrieving hard-copy health records from the Army Reserve Personnel Command and the VA Records Management Center (as described in last year's annual report to the sponsor). Acquiring those records is the last step in the study that is substantially beyond the time control of MFUA staff. Although the extent of delays is difficult to predict, staff is confident that its work beyond that hurdle would proceed without complication.

In the coming months, with continued cooperation with the VA, MFUA will

- receive from VA personal identifiers necessary to finalize study-population member selection and to request their relevant military records;
- process available records and seek alternative strategies to locate and obtain seemingly unavailable records; and
- further plan analytic strategy.

There are no currently scheduled advisory panel meetings, but the investigators consult with individual members of the panel as necessary, such as in forming the study group selection criteria. As the study progresses, the panel will meet to review data collection procedures and results and advise on data analysis and interpretation.

#### APPENDIX    Advisory Panel and Staff Roster

Annual Report for Contract DAMD17-00-C-0027  
Submitted August 9, 2002 by  
Susan Thaul, Ph.D., Study Director

APPENDIX

INSTITUTE OF MEDICINE  
The National Academies

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